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THE 'YEAR' IN THE QUR'ĀN

F. A. SHAMSI

Among the exegetes of the Qur'ān there are two views about the pre-Islamic Arabian calendar. According to one view, the Arabian calendar was a vaguely lunar calendar, twelve lunar months constituting a year. According to the other view, the Arabian calendar was a luni-solar one, there being intercalations of months to bring the calendar year into conformity with the solar year. A simple way to decide the issue could be to see whether any word had been used in the Qur'ān having the meaning of a year; and if so, whether there was any indication as to how the 'year' was there to be understood—as referring to a vaguely lunar year, or to a luni-solar year. (The third possibility, that the word 'year' might be understood as referring to a solar year, is discounted by the fact that the Arabian months were indubitably lunar, a month roughly corresponding to the period called a lunation).

I

In the Qur'ān, four words having the meaning of a year, *'ām*, *sanah*, *hawl* and *hijjah*, have been used. In addition, *huqub*, meaning a long stretch of time, has also been used, once in the singular (18:60) and once in the plural, *ahqāb* (78:23).

HIJJAH

The word '*hijjah*' means a pilgrimage to Makkah. It is difficult to say what precisely an Arabian *hajj* used to be and in what essentials it used to be different from the Arabian '*Umrah*', another pilgrimage to Makkah. However, there can be no doubt that for about two centuries before the advent of Islam the *hajj* used to be performed once a year, and hence that, in certain contexts, *hijjah* or *hajj* had the meaning of a *year*, and its plural, *hijaj* had the connotation of *years*. In the Qur'ān, the word *hijjah* (in the singular) does not itself

occur but its plural form, *hijaj*, occurs once at 28:27. There, the father of two damsels (whom Moses had helped) says to Moses that he would be willing to give one of his daughters in marriage to him if Moses served him for eight *hijaj*, that is, for eight years. In this verse, we find no indication as to what period might have counted for a *hijjah*, whether a period of twelve (lunar) months or a luni-solar year.

HAWL

The word *hawl* has various meanings: power, neighbourhood, around (as an adverb), and a year, etc. In the sense of a year, the word occurs twice in the Qur'ān, once in the singular (at 2:240) and once in the dual form (at 2:233). The verb *hala* means *to change, to be transformed, to turn*, etc. It is clear that the meaning of a year is derivative, having been derived quite obviously from one complete shift or one complete revolution. The shift, passage, or revolution, cannot be that of the moon, for the moon's passage through the lunar mansions (i.e., its synodic period) takes only about 29.53 days. The revolution in question therefore must be the passage of the sun through the lunar mansions, or, what is about the same, one complete apparent revolution of the lunar mansions. This clearly suggests a solar conception of the year, and, since the Arabian months were lunar, a luni-solar conception of the year. Apart from this etymological consideration, however, there is nothing in the context to indicate how the year is to be understood.

At 2:240, widows are granted the right of provision for a year without expulsion, and at 2:233, mothers are allowed to suckle their children for two whole years, if the fathers agree to the completion of the period of suckling.

'AM and SANAH

The words *'am* and *sanah* mean a year. There appears to be no difference between the two words, at least as far as the Qur'ān and reports from the companions of the Prophet are concerned.

These words occur in 26 verses of the Qur'ān, including a verse in which the occurrence is only virtual. We quote below each of these verses¹ seriatim (in the order in which they occur in the Qur'ān) with a view to seeing whether the context provides any indication as to what kind of a year is meant by the word *'am/sanah*.

1. Each one of them [i.e. the Jews of the Prophet's time] wishes a life of a milliard years [*sanatin*]. (2:96)

Although it is the Jews who have been mentioned, the verse does not at all indicate that the word 'years' here means the luni-solar years of the Jews. There is of course no indication of its meaning lunar year either.

2. Allah caused him [a person who had passed by a totally ruined hamlet and had wondered how Allah could bring it back to life] to die for a hundred years, [*āmin*], then raised him up. He [i.e. God] said, 'How long didst thou tarry (thus)?' He said, '(Perhaps) a day or part of a day'. He said, 'Nay, thou hast tarried thus a hundred years [*āmin*] . . .' (2:259)

There is no indication here as to how the word 'year' is to be qualified.

3. Allah said to Moses : 'Therefore will the land be out of their reach for forty years [*sanatan*]; in distraction will they wander through the land. (5:29)

God is speaking to Moses about the rebellious Jews. Hence, it seems, 'years' should here mean the Jewish luni-solar years. But, otherwise, there is no indication as to how the word 'year' is to be qualified.

4. We punished the people of Pharaoh with years [*sinīna*] (of drought) and shortness of crops. (7:130)

The phenomenon referred to here is related to the (tropical) solar and not the lunar 'year'. However, there can be many lunar years of drought and shortness of crops. Hence, as far as this verse is concerned, there is no indication as to how the word 'year' is to be qualified.

5. The pagans are unclean. So let them not approach the Sacred Mosque after this year of theirs [*āmihim*] (9:28)

There is complete unanimity that this verse was revealed after the conquest of Makkah.

Maulvi Ishaq al-Nabi takes this verse to imply that at the time of the revelation of this verse there were two different calendars in use, a lunar one among the Muslims and a luni-solar one among the pagans, *inasmuch as* the verse carries the expression 'after this year of *theirs*'.² We shall not go into the question whether or not there were two calendars in use in circa 9 A.H. We shall confine ourselves here to a consideration of the claim that the expression 'this year of theirs' implies that the Jāhilī Arabs had a different year from that of the Muslims. Now, the fact is that this is merely the Arab way of

referring to the year as such. We can quote numerous examples where there is just no possibility of this year of his (or mine or yours etc.) meaning a year of his or mine etc. which is different from that of the others. Interestingly enough, in the reports regarding 'Ali's announcement (on the occasion of Hajj Abū Bakr) that the idolaters shall not be allowed to make the hajj after that year, 'that year' has been variously rendered by the reporters: some give *al-ām* (this year), some say *āminā hādhā* (this year of ours), and, of course, some carry *āmihim hādhā* (this year of theirs).³ As it is, the Arabs also say *yawmīnā* (our day) and *yawmuhum* (their day), etc. meaning only *today*.⁴

So we find that there is no indication as to how the word 'year' is here to be qualified.

6. Verily, *al-Nasi'* is an addition to unbelief wherewith the unbelievers are led astray. They make it non-sacred one year ['aman] and sacred another year ['āman] in order to adjust the number of [months/days] decreed to be sacred, but in the process they make non-sacred what God has made sacred. May the evil in their deeds afflict them! God does not guide the mass of unbelieving people.⁵ (9:37)

This is the most important verse as far as the question in hand is concerned. But there are two reports regarding *al-nasi'* and so two possible interpretations of this verse, one interpretation based on the view that the Arabian years were vaguely lunar years and the other on the view that the Arabian years were luni-solar years. Thus, for the time being, we shall say that we cannot decide how the word "years" is here to be qualified.

7. See they not [i.e. the unbelievers of the Prophet's time] that they are tried every year ['āmin] once or twice? (9:126)

There is no indication as to how the word 'year' is to be qualified.

8. Verse 10:5.

We discuss this verse in a later section.

9. And he [i.e. Joseph] lingered in prison a few (more) years [sinina]. (12:42)

In the old Testament, Joseph lingers in the prison for more than two years,⁶ a year there certainly meaning a luni-solar year, yet there is no indication in this verse (12:42) that the word 'year' here means the luni-solar years of the Jews/Arabs. Nor is there any indication that it means lunar years.

10. to 12. He [i.e. Joseph] said, 'For seven years [sinīna] shall ye diligently sow as is your wont; and the harvests that ye reap, ye shall leave them in the ear, except a little of which ye shall eat. (12:47) 'Then will come after that (period) seven dreadful (years) which will devour what ye shall have laid by in advance for them, except a little which ye shall have (specially) guarded. (12:48). 'Then will come after that (period) a year ['āmin] in which the people will have abundant rain and in which they will press wine and oil'. (12:49)

These are certainly more favourable to the luni-solar view than to the vaguely lunar one for two reasons. Firstly, Joseph can hardly be expected, while speaking to the Egyptians, to use the word 'year' to mean a lunar year. (In the Old Testament too there are seven years of plenty followed by seven years of famine.⁷ There, "years" certainly means luni-solar years.) Secondly the agricultural phenomenon referred to here can hardly be related to a sequence of fifteen years of the lunar calendar. Calculation indicates that the fifteenth year here mentioned would more likely be the sixteenth lunar year than be the fifteenth.

13. Verse* 17:12.

We discuss this verse in a later section.

14. and 15. Then We drew (a veil) over their ears for a number of years [sinīna] in the cave. (18:11) So they stayed in their cave for three hundred years [sinīna] and (some) add nine (more). (18:25)

It could be rendered as 'and added nine'. However, Yusuf Ali's translation seems to make better sense. A question arises here: Could it be that some add 9 to make the total a lunar computation? For, three hundred solar (or luni-solar) years are almost equal to three hundred and nine lunar years of twelve lunations each. If so, it would imply that by "years" most people (i.e. most Meccans/Arabs, since the verse is Meccan) meant solar or luni-solar years while some people meant by it lunar years. However there is no indication in the verse as to who these people might have been. Nor is there any clear indication that two systems of computation *are* involved. Hence, the verse cannot be used in favour of either view.

16. Then didst thou [i.e. Moses] tarry a number of years [sinīna] with the people of Midian. (20:40)

There is no indication as to how the word 'year' is to be understood here.

17. A day in the sight of thy Lord is like a milliard of years [sanatin] of your reckoning. (22:47)

There is no indication for the required qualification.

18. What number of years [sinīnā] did ye stay on earth? (23:112)

There is no indication as to how "year" is to be understood.

19. [Pharaoh to Moses:] 'Didst thou not stay in our midst for many years [sinīnā] of your life? (26:18)

Pharaoh could hardly ask Moses about the lunar years of his life, neither of the two having used a lunar calendar. However, this could be a simple case of accepting a translation.

20. [To the Prophet] Seest thou? If We do let them [i.e., the unbelieving Arab chiefs who had asked for God's penalty to be hastened] enjoy (this life) for a few years [sinīnā] (26:205)...

This carries no indication for the required qualification.

21. We sent Noah to his people who lived among them a thousand years less fifty [alfa sanatin illā khamsīnā 'āman]. (29:14).

The expression *alfa sanatin illā khamsīnā 'āman* could of course mean "nine hundred and fifty lunar years", but in the present context, it would be more reasonable to suppose that nine hundred and fifty solar or luni-solar years are meant, since al-Bayrūni states that according to the Jewish tradition Noah had lived for nine hundred and fifty years, five hundred years before the birth of his son Shem and four hundred and fifty years thereafter, and that the Christians also give him five hundred years before Shem's birth (and hence, presumably, four hundred and fifty years after that).⁸ The Old Testament certainly credits Noah with nine hundred and fifty years, six hundred years before the Deluge and three hundred and fifty years thereafter.⁹ This surely means nine hundred and fifty luni-solar years of the Jews or nine hundred and fifty solar years. It would therefore seem that the words "*sanah*" and "*'ām*" here refer to the luni-solar years of the Jews/Arabs.

This is a statement made by Allah as the statement of a fact. Nevertheless, it could be a case of a simple translation of nine hundred and fifty Jewish years to nine hundred and fifty Arabian years in the popular parlance. Still, the verse favours the luni-solar view.

22. Rome has been defeated in a land close by, but they will soon be victorious within a few years [*sinīna*] (30:2-4).

This carries no indication as to how 'year' is to be qualified.

23. In travail upon travail did his mother bear him, and in years twain [*‘amayni*] was his weaning.... (31:14).

In two years, if the years be lunar, there are 24 months, and if the years be luni-solar there would be 24 or 25 months. Thus, there is no indication as to how the word 'year' is to be qualified, (from verse 36:15 it would seem that children were suckled for 30 months).

24. A day whose measure would be a thousand years [*sanatin*] of your reckoning. (32:5).

There is no indication in favour of either view.

25. To his weaning is (a period of) thirty months. At length when he [i.e. man] reaches the age of full strength and attains forty years [*sanatāh*] he says..... (46:15).

Here it seems that the *age of full strength* and the *attainment of forty years* are implied to be the same so that reaching the age of forty years appears to be causally connected with reaching the age of full strength. However, biologist friends of mine assure me that neither the age of 40 lunar years nor the age of 40 solar years is associated with the age of full strength. (Hence, this verse should be taken to imply that the age of 40 years had social implications). Thus, this verse provides no indication for the required qualification.

26. The angels and spirits ascend unto Him in a day the measure whereof is (as) fifty thousand years [*sanatin*] (70:4).

This verse contains no indication as to how the word 'year' is to be qualified.

SIGNIFICANT ABSENCE OF ‘ĀM/SANAH

Now there is a verse in the Qur‘ān in which the word year does not occur, but where, it appears, it should have occurred if it meant a lunar year and where it just could not occur if it meant a luni-solar year. This is verse 9:36. We quote the relevant portion:

27. The number of months *chez* God is twelve months (written) in the book of God the day He created the heavens and the earth, four of them (are) sacred.¹⁰

This verse clearly favours the luni-solar view though it does not by itself suffice to rule out the lunar view. In fact, the Prophet is reported to have stated in his Farewell Address, 'The number of months *in a year* is twelve months',¹¹ which clearly shows that either the Prophet or one of the early narrators felt that the insertion of 'in a year' was necessary here. If so, why do we have a reiteration (at 9:36) of the word 'months' but an absence of the requisite addition 'in a year'? The only reasonable explanation seems to be that the word 'ām as well as *sanah* used to mean a luni-solar or a solar year and not a vaguely lunar year and hence that its insertion would have amounted to a contradiction in terms: 'the number of months in a luni-solar year (or a solar year) *chez* God is twelve (lunar) months....!'¹²

II

'ADAD AL-SINĪN

There are two verses in the Qur'an which have a direct bearing on the question, 10:5 and 17:12. Both carry the expression 'in order that you may learn the number of years' (*li-ta'lamū 'adada al-sinīna*) and both belong to the Makkan period and hence in both the instances 'you' refers to the Jāhilī Arabs. Thus, if any system of reckoning the number of years is implied by (either of) these two verses, it must be the pre-Islamic Arabian system.

Dr. Muhammad Asad translates verse 10:5 as follows:

He it is who has made the sun a [source of] radiant light and the moon a light [reflected] and has determined for it phases so that you might know how to compute the years and to measure [time]. None of this has God created without [an inner] truth. Clearly does He spell out these messages unto people of [innate] knowledge.¹³

This clearly implies a lunar calendar. For, as per the above translation, it appears that the years were computed in terms of the phases of the moon. However, further consideration of the translation renders it (i.e., the translation) unacceptable.

First of all, the phrase *manāzil al-qamar* can mean both phases of the moon and *mansions* of the moon, and, as we shall presently see, the two have

different, nay, in the present context, contradictory, implications. *Secondly*, in the clause, *li-ta'lamū 'adada al-sinīna wa al-hisāba* (which may be rendered as 'so that you may know the number of years and the computation'), the words '*adada*' and '*al-hisāba*'—rendered by Dr. Muhammad Asad as 'how to compute' and 'to measure [time]'—are nouns and not verbs. *Thirdly*, even if these nouns are to be rendered as verbs, '*adada al-sinīna*', instead of being given as 'how to compute the years', should have been given as 'how to count the years' or 'how to number years', for, the expression used by Dr. Muhammad Asad despite the plural 'years' really means 'how to compute a year' whereas the other rendering involves counting or numbering years, i.e. counting how many years have elapsed since a given point of time, and not determining what is to count for a year. Thus, one feels that Dr. Muhammad Asad, in order to have *phases* instead of *mansions* was obliged to change the construction of the sentence. *Fourthly*, the year, so far as I know, has never been computed in terms of the phases of the moon: in fact, the phenomenon of lunar phases is related to and but marks the period we call a lunation or a lunar month. Hence, if Dr. Muhammad Asad's translation is to be sustained we would be obliged to assume that since the year was computed in terms of lunar months, and the lunar months in terms of lunar phases, this is what is being referred to. But one wonders why in that case we do not have the statement 'so that you might know how to compute the months and years....' *Finally*, the last part of the clause, viz., 'and to measure [time]' becomes an unnecessary repetition or an unintelligible addendum. The phases of the moon, though different from day to day, do not mark the period of a day or an invariable fraction thereof: hence to measure (time) can only mean to measure (the month) but this is already included in 'to compute the year' and in point of logic the latter phrase should have come earlier. If this be not the case then to measure (time) becomes an unintelligible phrase. Hence, we are constrained to conclude that the word *manāzil* must be rendered as mansions.

Abdullah Yusuf Ali translates the verse as follows:

It is He who made the sun
 To be a shining glory
 And the moon to be a light
 (Of beauty) and measured out
 Stages for her: that ye might
 Know the number of years
 And the count (of time).
 Nowise did Allah create this
 But in truth and righteousness.
 Thus doeth He explain His signs
 In detail for those who understand.

At first sight it again seems that a purely lunar calendar is implied by this verse, for, it is not the sun's motion which has been said to be related to the determination of the number of years: it is the *mañazil al-qamar* (i.e. the moon's mansions, or stages as given in the translation) from which men have been said to learn the number of years and *al-ḥisāb* (the computation, or 'count of time' as rendered by Abdullah Yousuf Ali, or 'measure of time' as given by Dr. Muhammad Asad). However, further consideration shows that it is the period of a solar year which is what is in all probability involved here and not the period of twelve lunar months conventionally called a lunar year.

It is to be noted that it is not the moon's creation, or its being a pleasant (or reflected) light which has been said to be related to the number of years and the count: on the contrary, it is the creation or appointment of *moon's mansions* which is said to have been for the purpose of men's knowing the number of years and the Count. Hence, it is to be taken as indisputably established by this verse that the Arabs in circa 620 A.D. used to learn the number of years and the Count (*ḥisāb*) from the lunar mansions.

Now, in order to understand what is meant by the expression "*mañazil al-qamar*" (Lunar mansions or stages) and how the number of years and the Count or Computation are related to them we have to sally a little into elementary astronomy. (We shall proceed on the geocentric assumption, the prevalent assumption at the relevant epoch.)

The universe is taken to be a sphere. The (centre of the) Earth is at its centre. The surface of this sphere is called the 'celestial sphere'. The heavenly bodies are fitted into the inner side of the celestial sphere. The celestial sphere rotates on its axis from east to west and completes its rotation in about twentyfour hours' time. Except for the seven wandering stars (Sun, Moon, Jupiter, Mercury, Mars, Venus and Saturn), called planets, all the stars, called fixed stars, retain their relative positions unchanged and rotate with the celestial sphere. The sun and the moon, two of these planets, also revolve around the earth and partake of the general diurnal rotation of the celestial sphere except that they move eastward as well as northward/southward in relation to the fixed stars. The moon in its eastward motion completes its revolution relatively to the fixed stars and returns to its former position among the stars in about 28 days, and completes its revolution relatively to the sun (which also moves eastward) in about 29.53 days. The path of the moon in its monthly revolution is a great circle on the celestial sphere. This great circle is divided into 28 equal segments and each segment is called a (lunar) mansion. The moon occupies each mansion for nearly one day. The sun, in its eastward motion relatively to the fixed stars, completes its revolution in about 365 days and returns to the same position among the stars. The path of the sun in this

motion is a great circle on the celestial sphere. This path is called the ecliptic. The sun and the moon so move that their paths intersect in two points called the nodes. The lunar path is inclined about five degrees to the ecliptic. It so happens that the planets never go very far out from the ecliptic; they ever remain within a belt of the celestial sphere whose northern and southern boundaries are each eight degrees apart from the ecliptic. This belt of sixteen degrees is called the zodiac. The zodiac is divided into twelve equal parts, each division being called a sign of the zodiac. Each sign thus comprises two lunar mansions and a third of another mansion. The sun occupies each mansion for thirteen days except for one mansion, *al-Jabbah* (*alfa*, *yota*, *gamma*, and *ksi* *Leonis*), which it occupies for fourteen days. The sun passes through all the mansions in about 365 days.¹⁴

Now in what way might the pre-Islamic Arabs have been wont to determine the number of years from the lunar mansions? The moon passes through the lunar mansions once every lunar month and the lunar month presents a natural period of time. But the march of the moon through the lunar mansions does not mark the period called a year, that is, a period having about three hundred sixtyfive (solar) days in which the seasonal phenomena repeat themselves. The number of twelve months is conventional and only very roughly corresponds to the solar annual revolution, or what is about the same, to the (annual) revolution of a lunar mansion. Two consecutive heliacal risings/ settings, or acronychal settings/risings of a lunar mansion/sign of the zodiac mark the period of a solar year. It appears that two successive heliacal settings of *al-Sharatan* (*a* and *b* *Arietis*) used to mark the period of a year for the Arabs.¹⁵ Thus the Arabs could do one of two things: (1) determine the number of years by the number of helical settings of a lunar mansion, or (2) determine the number of years by taking, say, twelve lunar revolutions around the mansions as constituting the period of a year. In the former case the year would constitute a natural unit and it would be correct to say that the number of years was learned from the *lunar mansions*. In the latter case the year would constitute a conventional period and it would be more appropriate to say that the number of *lunar revolutions* through the lunar mansions determines the number of years.

Thus it seems that the verse favours the luni-solar view although it does not rule out the vaguely lunar view.

We now turn to verse 17:12. Abdullah Yusuf Ali translates it as follows:

We have made the Night
and the Day as two
(Of our) Signs: the sign
Of the Night have We obscured

While the sign of the Day
 We have made to enlighten
 You; that ye may seek
 Bounty from your Lord,
 And that ye may know
 The number and count
 of the years: all things
 Have we explained in detail.

It appears that Abdullah Yusuf Ali, following some exegetes, takes *āyat al-layl* (the sign of the night) and *āyat al-nahār* (the sign of the day) as meaning that which is the sign of the night/day i.e., the sun and the moon. But this construction is incompatible with the just preceding clause, 'We have made the Night and the Day as two (of Our) signs', where the night and day themselves have been stated to be the signs. Moreover, in translating *wa li-ta'lamu 'adada al-sinīna wa al-hisāba* he assumes that the clause is to be read as *wa li-ta'lamu 'adada al-sinīna wa hisāba al-sinīna*, for which there is no warrant. This is moreover surprisingly different from his translation, and understanding, of the same expression at 10:5, where he renders it as 'that ye might know the number of years and the count (of time)' even though the explanatory parenthesis does not really succeed in conveying the meaning of the word "*al-hisāb*".

Dr. Muhammad Asad translates the verse as follows:

And We have established the night and the day as two symbols: and thereupon We have effaced the symbol of night and set up [in its place] the light giving symbol of day so that you might seek to obtain your sustainer's bounty and be aware of the passing years and of the reckoning (that is bound to come). For clearly, most clearly, have we spelt out everything.

Following the same interpretation of the verse, Dr. Muhammad Asad brings forward a more intelligible reading. But he too translates the expression *li-ta'lamu 'adada al-sinīna wa al-hisāba* differently here from his translation at 10:5. Moreover, the translation does not yield much sense. We are first told that God 'has established' the night and the day as two symbols. Then we are told that *thereupon* (here clearly meaning *thereafter*) God 'has done' such and such a thing. Hence, instead of 'has established' it should have been 'had established'. Secondly, I fail to understand what the expression, 'We have effaced the symbol of night and set up [in its place] the light giving symbol of day, so that...' mean. It cannot mean that the moon or the night has become non-existent. If not, then what does it mean? Finally, this translation implies a solar calendar, for the symbol of night having been effaced and the symbol of

day having been set up in its place, seeking of bounty and being aware of the passing years must obviously relate to the sun. But this is just the opposite of the implication of verse 10:5 as translated by Dr. Muhammad Asad.

We give below what we consider to be a correct translation of this verse.

We have made the Night and the Day as two (of our) Signs. Now, the sign of Night We have made sombre and made the sign of Day illuminating in order that you may seek bounty from your Lord and [in order that you may] know the number of years and *al-hisab*. We [are wont to] explain everything in detail.

If we assume that 'so that' (*li*) only relates to the sign of day, i.e., the sun, then it would mean that the number of years used to be determined by the apparent motion of the sun. (That is, if we read 17:12 as, '... the sign of Night we have made sombre; and made the sign of Day illuminating so that...') But there is considerable evidence to rule out the possibility that the Arabian calendar was a purely solar one. So we must assume that the word "*li*" (so that) covers both the signs. If so, the coverage may be of two sorts: (i) seeking bounty may be related to the sign of day i.e. the sun, and knowing the number of years and *al-hisab* to the sign of night, i.e. the moon, or (ii) seeking bounty and knowing the number of years may be jointly related to the two signs taken jointly. In the former case, the calendar implied would be vaguely lunar; in the latter case, the implied calendar may be luni-solar.

Now, which of the two alternative interpretations is to be accepted? The fact that here the moon is mentioned before the sun and seeking bounty precedes knowing the number of years inclines me to accept alternative (ii). If one adopts the former alternative then in that case the relation between the set of signs and the set of benefits would be inverse, which, I believe, would not be a very effective means of conveying the meaning.

Any system in which the appearance of the moon and not the moon's motion counts cannot but have something to do with the sun. If for no other purpose at least for the determination of the *day* for even the (civil) lunar day commences not with the diurnal appearance of the moon but with the setting of the sun. (The moon's apparent diurnal motion is too irregular to be adopted as a unit) Thus the fact that the moon and the sun are both said to have something to do with the number of years does not prove that the calendar must have been luni-solar: it only proves that the calendar was not solar and may very well have been luni-solar. Thus, as far as this verse is concerned, it does not rule out the lunar hypothesis though it is more coherent with the luni-solar hypothesis.

AL-HISAB

We have not yet taken the word "*hisāb*" into account, contenting ourselves with taking it as meaning the count of time. However, grammatically, it is an inadmissible interpretation.

The word "*hisāb*", according to Lane, means *numbering, counting, reckoning, calculation* or *computation*.¹⁶ Now, as this word occurs in the two verses in question, 10:5 and 17:12, it is to be taken as (i) at par with *sinin* (years), with '*adad* (number) qualifying both *sinin* and *hisab* (the number of years and of calculation), or as (ii) at par with '*adad* (number), qualifying *sinin* by implication ('*adada al-sinīna wa hisāba al-sinīna*, the number of years and the numbering/computation of years), or as (iii) at par with '*adad al-sinīn, li-ta'lamū 'adada al-sinīna wa li-ta'lamū al-hisāb*', in order that you may learn (a) the number of years and (b) *al-hisāb* (computation). The first is quite absurd: number attributed to both years and calculation yields no sense. Moreover, it is grammatically inadmissible; the expression at both 10:5 and 17:12 is *li-ta'lamū 'adada al-sinīna wa al-hisāb*, and not *wa al-hisābi* which would be required if '*adad* is to qualify *al-hisāb*. The second is possible but appears to be repetitive unless the clause means, 'you may be able to know the number of years and be able to know how to compute a year'. In itself this makes sense, but taken in this sense, verse 10:5 would seem to imply a purely solar calendar, i.e., a calendar in which the months are not lunar months but conventional units having certain fixed number of days independently of the lunar period such that the months taken together constitute a (solar) year. Now, although it appears almost certain that the Arabian months had conventionally assigned number of days, it appears equally certain that, as stated above, their months were lunar (the months being assigned either twenty-nine or thirty days and beginning in close proximity to the conjunction of the sun and the moon so that a month would roughly correspond to an actual lunation) and that the Arabian year was constituted of a certain number of lunar months. And this rules out the possibility of pre-Islamic Arabian calendar having been a purely solar one. We are thus obliged to accept the third alternative, viz., that '*al-hisab*' in verses 10:5 and 17:12 occurs at par with '*adad al-sinīn* (number of years) and as a substantive or noun. What would *al-hisāb* here mean? A careful study of the verses in conjunction with reliable reports regarding the nature of the pre-Islamic Arabian calendar shows that it must mean the process of taking into account the difference between the calendar and the solar years and adjusting the number of days of the solar year with the number of days of the calendar years by making intercalations as and when so required, including in all probability the postponement of the days of '*umrah* and *hajj*, etc. by a number of days equivalent to the progression of the luni-solar years. In other

words, it here means a set of calculations whereby the months were made to appear in their due seasons and the days of 'Umrah and *hajj* etc. were made to correspond to the same days in the solar year. The word *al-hisāb* in its every day meaning of calculation or reckoning is a general notion and can comprehend the special notion of a special kind of calculation or reckoning. It may be mentioned that al-Baydāwī explains this term of *al-hisāb* to here mean 'the reckoning of periods of time from the months and days in your social life and regulations'¹⁷ which comes very close to what we have said, especially if it is remembered that al-Baydāwī held the lunar view regarding *nasi'* and the *Jahili* calendar. It may be further pointed out that as late writers as al-Sufi and Ibn Qutaybah refer to astronomers/chronologists as *ahl al-hisāb* (those skilled in *al-hisāb*).¹⁸ Thus, although there is little historical evidence in support of such an assumption about "*al-hisāb*", textual consideration of the two verses in question leaves no alternative but to make this assumption.

In fine, these verses, though not sufficient by themselves to reject the vaguely lunar view, lend so great a support to the luni-solar view as to make it almost certain.

III

VERSES 9:36-37

We have so far discussed each verse in isolation from the other verses, and appear to be arriving at the conclusion that the Arabian calendar must have been a luni-solar one. However, verses 9:36-37, taken together and in conjunction with the report that *al-nasi'* used to be the system of postponing or transferring the sacredness of a month to a later month appear to show that an Arabian year must have been a period of twelve lunar months.

(A translation of verse 9:37 and of the relevant portion of verse 9:36 has been given above).

The clause at 9:37, 'they make it (i.e. a certain month/period) non-sacred one year and sacred another year in *order to adjust the number (of months/ days), decreed by God to be sacred*' seems to clearly imply that as far as the number of sacred months was concerned the Arabs used never to prevaricate in this regard and that they faithfully used to observe the decree of God in regard to the number of sacred months making reparations whenever a sacred month was made non-sacred by making a non-sacred month sacred. Now, the number ordained by God at 9:36 is *four out of every twelve months*. Hence, it seems to follow that the Arabs used to make four out of every twelve months sacred. It may be thought that this number was prescribed seven or

eight years after the Hijrah with the revelation of verse 9:36 and that the number chez the Arabs used to be different. But such a view would not be sustainable. For, the clause of 9:37 quoted above, viz., 'in order to adjust the number decreed by God to be sacred' appears to be quite clear in its implication that the Arabs did not tinker with the decreed number. Nor can we assume here that God may have previously decreed a different number of sacred months (say, eleven out of three hundred and seventyone months), for, at 9:36 we are told that the number of twelve months including four sacred ones was decreed the day God created the heavens and the earth, that is, from the very beginning. Thus, it would appear that the Arabs did adhere to the decreed number of sacred months and used to make adjustments occasioned by the occasional departure from the right course decreed by God (in making a sacred month non-sacred). Verse 9:36 informs us that God has decreed twelve months to constitute a cycle of months with four months in each cycle sacred right from the day of creation. Thus it seems to follow that the Arabs had a vaguely lunar calendar, the period of twelve lunations constituting a lunar year, four of which were sacred.

If so, how is it that a number of Muslim scholars nevertheless subscribe to the luni-solar view? The reason is not far to seek: it lies in an alternative construction of verses 9:36-37.

In the first place, the declaration (at 9:36) of twelve months constituting a cycle would appear to be a little too emphatic, if the Arabs used to adhere to such cycles. Secondly, there is a glaring omission of the word *'ām/sanah* (year) from verse 9:36 in a context where one would expect it to be used if the Arabian year used to be comprised of twelve lunar months and where its occurrence even if not altogether inadmissible would be confusing if the year used sometimes to consist of twelve and sometimes of thirteen months. However, the expression, 'among them four (are) sacred' follows the expression 'the number of months chez God is twelve months, decreed by God the day the heavens and the earth were created', and may therefore be an *independent* clause introducing a new decree. That is, verse 9:36 may be interpreted to mean that the number of twelve months had been decreed by God from the first day but the Arabs did not act upon this decree and that from then onwards (i.e., after the time of the revelation of this verse) not only was this decree to be observed but also another decree to the effect that four of these months were to be made sacred. This is a possible construction of the verse. Furthermore, the clause, 'in order to adjust', in verse 9:37 may be taken in inverted commas meaning 'in order to (as they say) adjust'. This becomes all the more possible if it is held that the verse (on the luni-solar view of the Arabian calendar), begins with a pun, 'Verily, the *nāsī*' (the intercalary month) is not so much an addition to the year as to the unbelief of the Unbelievers',

for, in that case, the expression 'in order to adjust' itself appears to be an ironical observation. There can be little doubt that *yuwāti* (to adjust) was a term used by the intercalaters, that it was not used in the general sense of any kind of adjustment, and that it was not much used by the ordinary people. Hence it would be obvious to everyone that it was in the nature of a quotation. Finally, verse 9:36 which decrees the cycle of twelve months with four sacred ones, goes on to declare that 'this is the right way', and verse 9:37 which states that they (i.e. the Jāhilī Arabs) make non-sacred what God has made sacred ends up with the declaration, 'But God does not guide the mass of the unbelieving people' (i.e., the unbelieving people do not act upon what God has decreed and which is the right way to act). This suggests that the Arabs may not have prevaricated merely in transferring sacredness of one month to another but may have prevaricated in varying the number of months in a year, committing as a *consequence* thereof the sin of making a month non-sacred which God had decreed to be sacred.¹⁹

IV

SUMMARY AND CONCLUSIONS

To sum up the discussion, we may point out the following:-

1. The one verse in which the word "hijāj" occurs (28:27), there is no contextual evidence as to which of the two periods, the lunar 'year' or the luni-solar year, is indicated by this word.
2. The fact that the word "Hawl" has been used in the Qur'ān to mean a year (2:233 and 2:240), in view of the etymology of the word and the fact that the Arabian months were lunar gives a presumption in favour of the view that the Arabian years used to be luni-solar ones.
3. Out of the twenty six verses in which the word 'ām or *sanah* has been (actually or virtually) used in the Qur'ān, there is not a single verse in which either of these two words may have been so used as to necessitate its rendition by the expression '(lunar) year' (assuming that a lunar year is a period of twelve lunations).
4. In nineteen of the twenty six verses there is no indication as to what kind of a year was meant by 'ām/*sanah*.
5. In four verses (12:47-49 and 29:14) it seems more probable that the word 'ām or *sanah* meant a luni-solar year than that a lunar year was meant.

6. One verse (9:37) has been taken to be neutral between the two views in question because of the apparent difficulty in its interpretation.
7. Two verses (10:5 and 17:12) do not quite cohere with the view that *sanah* meant a lunar year and lead us to the belief that the Arabian years must in all likelihood have been luni-solar in character.
8. In one verse (9:36) the absence of a word for the year is so significant as to almost necessitate the view that the words "ām" and "sanah" must have meant luni-solar years.
9. Verses 9:36-37, taken jointly but confined to themselves, do not favour either view concerning the nature of the Arabian calendar.

We thus come to the conclusion that, as far as the Qur'ān is concerned, there is not even the most tenuous suggestion that the pre-Islamic Arabian calendar was a vaguely lunar one, and that the verses of the Qur'ān induce a great presumption in favour of the view that the Arabian calendar was luni-solar in nature.



NOTES

1. Unless otherwise indicated, the 1975 (Lahore) edition of Abdullah Yusuf Ali's translation, *Interpretation of the Holy Qur'an* (shorn of the superficial appearance of *verse libre*) has been used in this paper.
2. Ishāq al-Nabī 'Alawī, "Wāqī'at-i-Sīrat-i-Nabawī mēn Tawqītī Tadād awr uskā Hall" (Contradiction in Dating Events in the Life of the Prophet and its Resolution), *Burhān* (Delhi), vol. LIII (July-December, 1964), p. 350 (= December 1964, p. 30). Maulvī Ishāq al-Nabī does not say this in so many words. However, it is clear that he makes this assumption. For, from this verse he draws the conclusion that the four months of respite granted to the non-Muslims by verse 9:2 were the last four months of the non-Muslims' year which was different from the year of the Muslims. That is, he takes the statement (at 9:28) to be, 'So, let not the idolaters approach the Sacred Mosque after the expiry of their current year.'
3. See, e.g., Al-Tūsī (365-460 A.H.), *Tafsīr al-Tibyān*, (Najaf, 1379/1960), vol. V, p. 198; Fakhr al-Dīn Al-Rāzī, *Al-Tafsīr al-Kabīr*, (Egypt, 1357/1938), vol. XV, p. 218; and, Muḥmūd al-Ālūsī, *Rūh al-Ma'anī fī Tafsīr al-Qur'ān*, (Egypt, n.d.), Part X, p. 44.
4. See, e.g., Ibn Hishām, *Sīrah* (Gottingen, 1958), p. 416 (zamānih); Al-Azraqī, *Akhbār Makkah* (Makkah, 1352 A.H.), vol. I, p. 72; Ibn Qayyim, *Zād al-Ma'ād*, (Beirut and Kuwait, 1399/1979), vol. III, p. 328 (laylatah and laylati).
5. This translation is ours.
6. Genesis, chapter 41, verse 1.
7. Ibid., verses 29-30, 47, and 53-54.
8. Al-Bayrūnī, *Kitāb al-Āthār al-Baqīyah 'an al-Qur'ān al-Khāliyah*, ed. C.E. Sachau, reprint (Leipzig, 1923), p. 73.
9. Genesis, Chapter 7, verse 6, and chapter 9, verses 28 and 29.
10. This translation is ours.
11. It is reported from Abū Bakrah that on the occasion of *Hajjat al-Widā'* the Prophet stated, 'Al-Zamān qad istidār ka-hay'atih yawma khalaq Allah al-samawat wa al-ard, al-sanah ithnā 'asharah shahrah minhā arba 'ah ḫurum....' see, e.g. Ibn Hanbal, *al-Musnād*, (Cairo, 1313 A.H.), vol. V., p. 37, Al-Bukhārī, *Kitāb al-Jāmi' al-Ṣaḥīḥ* (Leiden, 1864), vol. II, p. 303, and, Al-Tabārī, *Jāmi' al-Bayān*, ed. M.M. Shakir, (Cairo, n.d.), vol. XIV, p. 235.
12. The contradiction is patent. However, in the Farewell Address the Prophet could use the expression 'in a year' because at that time, at least for the Muslims, the word "year" had come to mean a lunar year.
13. Muhammad Asad, *The Message of Qur'an* (Gibraltar, 1980), see, pp. 288-289 for this verse.
14. Ptolemy (Claudius Ptolemaeus), *The Almagest* (Tr R.C. Taliaferro) in the *Great Books of the Western World*, reprint (Encyclopaedia Britannica Inc., 1975) pp. 1-14, 71-84 and 109-112; 'Abd al-Rahmān al-Ṣūfī (d. 376/986), *Kitāb Suwar al-Kawākib* (Hyderabad (Deccan), 1373/1954), pp. 7-8 and 10-14; Ibn Qutaybah, *Kitāb al-Anwā'*, (Hyderabad (Deccan), 1375/1956), esp. pp. 4-7, 9-11, 103-4 and 120-126.
15. We have "considerable evidence for this view. In verse 106:2, *al-Shitā'* (autumn-cum-winter) precedes *al-Sayf* (spring-cum-summer), and, all writers are agreed that the Arabs used to divide the year into four seasons and used to begin the count with *Rabi'* (for them, the Autumn). Al-Ṣūfī, Ibn Qutaybah and al-Bayrūnī etc. say that the lunar mansions were divided by the Arabs into 28 sections and that the count began with *al-Sharāṭān*. The proposed etymologies for the names of Arabian months show a correspondence between months and seasons, and according to this correspondence, al-Muharram must have been an autumn month (since the Jumādās

- were winter months and Ramadān a summer month); in fact, al-Muḥarram is said to have been called Ṣafar al-Awwal, and "safarīyah" is said to mean autumnal.
16. E.W. Lane, *Arabic-English Lexicon* (reprint Lahore), Book I, Part 2, p. 567.
 17. Al-Bayḍāwī, *Anwār al-Tanzīl* (Egypt, 1388/1968), vol. I, p. 440.
 18. Ibn Qutaybah, *op. cit.*, p. 100 et passim.
 19. For example, the 43rd month of the era ought to be the 7th month, i.e., Rajab, of the 4th year, and, as such, a sacred month, but, as a result of the intercalation of a month in the 3rd year, the 43rd month of the era would become the 6th month of the 4th year, would be called Jumadā al-Ukhrā, and would become a non-sacred month.
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